

REMARKS

Claims 1-15 are pending. Claims 1-3, 5-11, and 13-15 stand rejected. Claim 3 has been canceled without prejudice or a disclaimer. Claims 1 and 8 are independent claims.

Applicant wishes to thank the Examiner for indicating that any one of the claims 4, 5, and 12 would be allowed if each claim is rewritten as an independent claim incorporating all features of the base and any intervening claims. Applicant, however, believes that claims 1 and 8 are patentable over the prior art references, and as such, the Applicant wishes to defer rewriting any one of the claims 4, 5, and 12.

Claims 1 and 8 stands rejected under 35 U.S.C. ' 102(b) as allegedly being anticipated by Tiemeijer *et al.* (High-Gain 1310-nm Reflective Semiconductor Optical Amplifiers with Low-Gain Uncertainty, IEEE Photonics Technology Letters, Vol. 9, No. 1 (January 1997)) (“Tiemeijer”) in view of Ventrudo *et al.* (U.S. 6,661,819).

Claims 1 and 8 recite a light source comprising, *inter alia*, “an **optical waveguide** disposed **between** the semiconductor optical amplifier and the reflector...”

To reject a claim under section 103, the United States Court of Appeals for the Federal Circuit required a showing of an **unrebutted *prima facie* case** of obviousness (*In re Rouffet*, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998) (citing *In re Deuel*, 51 F.3d 1552, 1557, 34 USPQ2d 1210, 1214 (Fed. Cir. 1995))). According to the court, the *prima facie* case cannot be established unless the prior art references teach **all features** in the claims (*In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)), including those in **functional language** (*In re Schreiber*, 128 F.3d 1473, 1478, 44 USPQ.2d 1429 (Fed. Cir. 1997) (holding that the patent applicant is free to recite features of an apparatus claim in functional language as long as the features in functional language are not inherent to the prior art)).

Tiemeijer, as read by the Applicant, discloses a high gain 1310 nm reflective semiconductor optical amplifier comprising a semiconductor optical amplifier; a reflector; an aspheric lens; and a Faraday Rotator. However, nowhere does Tiemeijer disclose “an optical waveguide disposed between the semiconductor optical amplifier and the reflector...” as recited in claims 1 and 8.

Ventrudo, as read by the Applicant, discloses a fiber grating stabilized diode laser. However, Ventrudo fails to disclose a semiconductor optical amplifier and an “optical waveguide disposed between the semiconductor optical amplifier and the reflector,” as recited in claims 1 and 8. Instead, Ventrudo discloses a laser diode 26, the laser diode that the Office Action indicates to be different from the semiconductor optical amplifier of claims 1 and 8 (see the present Office Action, page 3, line 4-6 (indicating that the semiconductor optical amplifier differs from the semiconductor diode laser)). In addition, Ventrudo teaches that the disclosed optical fiber is disposed at one facet of such different laser diode 26, not between a semiconductor optical amplifier and a reflector (see FIG. 1 and 2 of Ventrudo).

As such, Ventrudo discloses, at most, an optical fiber disposed at one side of an optical component other than the semiconductor optical amplifier. Ventrudo does not teach “an optical waveguide disposed between the semiconductor optical amplifier and the reflector...” as recited in claims 1 and 8.

As both Tiemeijer and Ventrudo fail to disclose “an optical waveguide disposed between the semiconductor optical amplifier and the reflector...” as recited in claims 1 and 8, two references, alone or in combination, fail to teach all feature or render claims 1 and 8 obvious. The Applicant respectfully requests withdrawal of the rejection on each claim.


Amendment
Serial No. 10/806,549

Other dependent claims in this application are each dependent on the independent claims 1 and 8 and believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of the patentability of each on its own merits is respectfully requested.

Should the Examiner deem that there are any issues which may be best resolved by telephone, please contact Applicant's undersigned representative at the number listed below.

Respectfully submitted,

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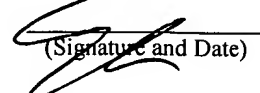
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